

What Is Claimed:

1. A method of treating a patient for a condition characterized by symptoms that can be alleviated by interfering with the activity of endogenous ligands on the $\alpha_2\delta$ subunit of a voltage gated calcium channel, said method comprising:

administering to a patient experiencing the condition an amount of one or more of L-norleucine, L-isoleucine, L-alloisoleucine, L-methionine, L-leucine, 2-cyclohexylglycine, 2-phenylglycine, 2-amino-2-norbornane carboxylic acid, 1-aminocyclohexane carboxylic acid, 2-aminoheptanoic acid, 2-aminocaprylic acid, and 2-aminononanoic acid under conditions effective to treat the condition, wherein when the condition is a hot flash or a symptom of hormonal variation, the compound is not L-leucine.

2. The method according to claim 1 wherein the compound is L-norleucine.

3. The method according to claim 1 wherein the compound is L-isoleucine.

4. The method according to claim 1 wherein the compound is L-alloisoleucine.

5. The method according to claim 1 wherein the compound is L-methionine.

6. The method according to claim 1 wherein the compound is L-leucine.

7. The method according to claim 1 wherein the compound is 2-cyclohexylglycine.

8. The method according to claim 1 wherein the compound is 2-phenylglycine.

9. The method according to claim 1 wherein the compound is 2-amino-2-norbornane carboxylic acid.

10. The method according to claim 1 wherein the compound is 1-aminocyclohexane carboxylic acid.

11. The method according to claim 1 wherein the compound is 2-aminoheptanoic acid.

12. The method according to claim 1 wherein the compound is 2-aminocaprylic acid.

13. The method according to claim 1 wherein the compound is 2-aminononanoic acid.

14. The method according to claim 1 wherein compound is administered in an amount of about 10 to about 5000 mg per day.

15. The method according to claim 1 wherein said administering is carried out orally, parenterally, subcutaneously, transdermally, intravenously, intramuscularly, intraperitoneally, by intranasal instillation, by implantation, by intracavitary or intravesical instillation, intraocularly, intraarterially, intralesionally, or by application to mucous membranes.

16. The method according to claim 1 wherein the compound is present in a pharmaceutical composition comprising the compound and a pharmaceutically-acceptable carrier.

17. The method according to claim 16 wherein the pharmaceutical composition is in a liquid or solid dosage form.

18. The method according to claim 1 wherein the compound is present in a nutritional supplement comprising the compound and an organoleptically suitable carrier.

19. The method according to claim 18 wherein the nutritional supplement is in a liquid or solid dosage form.

20. The method according to claim 1 wherein the condition is one or more of hot flashes or symptoms of hormonal variation, seizures, vertigo, migraine headaches, chronic pain disorders, a neurodegenerative disease, tic disorders, tremor disorders, nausea, cough, hiccups, asthma, hyperhidrosis, sleep disorders, fatigue,
5 fibromyalgia, premature labor, preeclampsia or eclampsia, irritable bowel syndrome, inflammatory bowel disease, gastrointestinal damage caused by drugs and alcohol, drug addiction, obsessive compulsive disorders, generalized anxiety disorders, impulse control disorders, and attention deficit hyperactivity disorder.

10 21. The method according to claim 20 wherein the condition is a hot flash or symptoms of hormonal variation.

22. The method according to claim 20 wherein the condition is a seizure.

15 23. The method according to claim 20 wherein the condition is vertigo.

20 24. The method according to claim 20 wherein the condition is migraine headaches.

25 25. The method according to claim 20 wherein the condition is a chronic pain disorder.

26 26. The method according to claim 1 wherein the condition is a neurodegenerative disease.

27. The method according to claim 26 wherein the neurodegenerative disease is Parkinson's Disease, Alzheimer's Disease, Huntington's Disease, Multiple Sclerosis, or Amyotrophic Lateral Sclerosis.
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28. The method according to claim 20 wherein the condition is a tremor disorder.

35 29. The method according to claim 20 wherein the condition is a tic disorder.

30. The method according to claim 20 wherein the condition is
nausea.

5 31. The method according to claim 20 wherein the condition is a
cough.

32. The method according to claim 20 wherein the condition is
hiccups.

10 33. The method according to claim 20 wherein the condition is
asthma.

15 34. The method according to claim 20 wherein the condition is
hyperhidrosis.

35. The method according to claim 20 wherein the condition is a
sleep disorder.

20 36. The method according to claim 20 wherein the condition is
fatigue.

37. The method according to claim 20 wherein the condition is
fibromyalgia.

25 38. The method according to claim 20 wherein the condition is
premature labor.

39. The method according to claim 20 wherein the condition is
preeclampsia or eclampsia.

30 40. The method according to claim 20 wherein the condition is
irritable bowel syndrome or inflammatory bowel disease.

35 41. The method according to claim 20 wherein the condition is
gastrointestinal damage caused by drugs and alcohol.

42. The method according to claim 20 wherein the condition is drug addiction.

43. The method according to claim 20 wherein the condition is an obsessive compulsive disorder.

44. The method according to claim 20 wherein the condition is a generalized anxiety disorder.

45. The method according to claim 20 wherein the condition is an impulse control disorder.

46. The method according to claim 20 wherein the condition is attention deficit hyperactivity disorder.

47. A composition in a single unit dosage form comprising:
a pharmaceutically or organoleptically acceptable carrier and
one or more compounds selected from the group consisting of
2-cyclohexylglycine, 2-phenylglycine, 2-amino-2-norbornane carboxylic acid, 1-
aminocyclohexane carboxylic acid, 2-aminoheptanoic acid, 2-aminocaprylic acid, 2-
aminononanoic acid, L-norleucine, L-isoleucine, L-alloisoleucine, L-methionine, and
L-leucine,

wherein the single unit dosage form comprises an amount of
the one or more compounds which is effective to treat a condition characterized by
symptoms that can be alleviated by interfering with the activity of endogenous ligands
on the $\alpha_2\delta$ subunit of a voltage gated calcium channel.

48. The composition according to claim 47 wherein the composition comprises two or more compounds.